

Patent claims

1. A fixing device for an expansion valve (4), which is connected to two lines (5, 6), of a motor vehicle air-conditioning system (1), the two lines (5, 6) being positioned relative to each other by means of a line-positioning element (7; 7'; 7''), which is designed as a sheet-metal punched part, with two slots for receiving the lines, characterized in that the expansion valve (4) can be fitted and can be fixed in an at least twist-proof manner with the aid of the line-positioning element (7; 7'; 7'') on a housing (2) in which a part of the motor vehicle air-conditioning system (1) is arranged.

2. The fixing device as claimed in claim 1, characterized in that the two slots (9) for receiving the lines (5, 6) are arranged parallel to each other in the line-positioning element (7; 7'; 7'').

3. The fixing device as claimed in claim 1 or 2, characterized in that two further slots (11) are provided in the positioning element (7), said slots serving to position and/or fix the line-positioning element (7) on the housing (2).

4. The fixing device as claimed in claim 3, characterized in that the two further slots (11) extend in a line toward each other at the longitudinal ends of the line-positioning element (7).

5. The fixing device as claimed in claim 1 or 2, characterized in that two through holes (11') are provided in the positioning element (7'), said through holes serving to position and/or fix the line-positioning element (7') on the housing (2).

6. The fixing device as claimed in claim 5,

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characterized in that screws are inserted through the through holes (11') and are screwed into projections (12'), which are designed as screw domes, of the housing (2).

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7. The fixing device as claimed in claim 1 or 2, characterized in that the positioning element (7'') is inserted by its ends on the longitudinal sides into two projections (12'') which are designed as pocket-shaped receptacles and are formed on the housing (2).

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8. The fixing device as claimed in claim 7, characterized in that the pocket-shaped receptacles have ribs serving for guidance and spacing apart from the housing (2).

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9. The fixing device as claimed in one of the preceding claims, characterized in that the fixing device (8; 8'; 8'') is suitable for fitting the expansion valve (4) on the outer side of the housing (2) with respect to the heat exchanger (3).

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10. The fixing device as claimed in one of the preceding claims, characterized in that at least one hole (10) is provided in the line-positioning element (7; 7'; 7'') to pass a screw through and to screw the same in the expansion valve (4).

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11. The fixing device as claimed in one of the preceding claims, characterized in that the housing (2) is of multi-part design, with a housing joint running transversely through the housing-side part of the fixing device (8; 8'; 8'').

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12. The fixing device as claimed in claim 11, characterized in that in the housing joint an opening is provided through which protrudes at least one line (5, 6) which is connected to the expansion valve (4).

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13. An air-conditioning system for a motor vehicle,
characterized by a fixing device (8; 8'; 8'') for an
expansion valve (4) as claimed in one of claims 1 to
5 12.